

OIPE

RAW SEQUENCE LISTING

DATE: 03/19/2002 TIME: 14:57:24

PATENT APPLICATION: US/10/007,132

Input Set : N:\Crf3\RULE60\10007132.raw Output Set: N:\CRF3\03192002\J007132.raw

SEQUENCE LISTING

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3 (1) GENERAL INFORMATION:
              (i) APPLICANT: Bard, Jonathan A
      6
                             Borowsky, Beth
      7
                             Smith, Kelli E
      9
             (ii) TITLE OF INVENTION: DNA ENCODING GALANIN GALR3 RECEPTORS
     10
                                      AND USES THEREOF
     12
            (iii) NUMBER OF SEQUENCES: 65
     14
             (iv) CORRESPONDENCE ADDRESS:
     15
                   (A) ADDRESSEE: Cooper & Dunham LLP
     16
                   (B) STREET: 1185 Avenue of the Americas
     17
                   (C) CITY: New York
     18
                   (D) STATE: New York
     19
                   (E) COUNTRY: U.S.A.
     20
                   (F) ZIP: 10036
     22
              (V) COMPUTER READABLE FORM:
     23
                   (A) MEDIUM TYPE: Floppy disk
     24
                   (B) COMPUTER: IBM PC compatible
     25
                   (C) OPERATING SYSTEM: PC-DOS/MS-DOS
     26
                   (D) SOFTWARE: PatentIn Release #1.0, Version #1.30
     28
            (vi) CURRENT APPLICATION DATA:
C--> 29
                   (A) APPLICATION NUMBER: US/10/007,132
C--> 30
                   (B) FILING DATE: 03-Dec-2001
     31
                   (C) CLASSIFICATION:
     33
           (vii) PRIOR APPLICATION DATA:
     34
                   (A) APPLICATION NUMBER: 09/058,333
     35
                   (B) FILING DATE:
     38
          (viii) ATTORNEY/AGENT INFORMATION:
     39
                   (A) NAME: White, John P
     40
                   (B) REGISTRATION NUMBER: 28,678
     41
                   (C) REFERENCE/DOCKET NUMBER: 52241-E/JPW/KDB
     43
            (ix) TELECOMMUNICATION INFORMATION:
     44
                   (A) TELEPHONE: 212 278 0400
     45
                   (B) TELEFAX: 212 391 0525
     48 (2) INFORMATION FOR SEQ ID NO: 1:
     50
             (i) SEQUENCE CHARACTERISTICS:
     51
                  (A) LENGTH: 1280 base pairs
     52
                  (B) TYPE: nucleic acid
     53
                  (C) STRANDEDNESS: single
     54
                  (D) TOPOLOGY: linear
W--> 56
            (ii) MOLECULE TYPE: DNA
     58
            (ix) FEATURE:
     59
                  (A) NAME/KEY: CDS
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60 (B) LOCATION: 631172	
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68 1 5 10 15	
70 GGG GCT GTG GCA GTG CCT GTG ATC TTT GCC CTC ATC TTC CTG TTG GGC	155
71 Gly Ala Val Ala Val Pro Val Ile Phe Ala Leu Ile Phe Leu Leu Gly	
72 20 25 30	
74 ATG GTG GGC AAT GGG CTG GTG TTG GCT GTG CTA CTG CAG CCT GGC CCA	203
75 Met Val Gly Asn Gly Leu Val Leu Ala Val Leu Leu Gln Pro Gly Pro	
76 35 40 45	051
78 AGT GCC TGG CAG GAG CCA AGC AGT ACC ACA GAT CTC TTC ATC CTC AAC	251
79 Ser Ala Trp Gln Glu Pro Ser Ser Thr Thr Asp Leu Phe Ile Leu Asn	
80 50 55 60 82 TTG GCC GTG GCC GAC CTT TGC TTC ATC CTG TGC TGC GTG CCC TTC CAG	299
83 Leu Ala Val Ala Asp Leu Cys Phe Ile Leu Cys Cys Val Pro Phe Gln	299
84 65 70 75	
86 GCA GCC ATC TAC ACA CTG GAT GCC TGG CTC TTT GGG GCT TTC GTG TGC	347
87 Ala Ala Ile Tyr Thr Leu Asp Ala Trp Leu Phe Gly Ala Phe Val Cys	51.
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91 Lys Thr Val His Leu Leu Ile Tyr Leu Thr Met Tyr Ala Ser Ser Phe	
92 100 105 110	
94 ACC CTG GCG GCC GTC TCC CTG GAC AGG TAC CTG GCT GTG CGG CAC CCA	443
95 Thr Leu Ala Ala Val Ser Leu Asp Arg Tyr Leu Ala Val Arg His Pro	
96 115 120 125	
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99 Leu Arg Ser Arg Ala Leu Arg Thr Pro Arg Asn Ala Arg Ala Ala Val	
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103 Gly Leu Val Trp Leu Leu Ala Ala Leu Phe Ser Ala Pro Tyr Leu Ser 104 145 150 155	
104 145 150 155 106 TAT TAC GGC ACG GTG CGC TAC GGC GCG CTC GAG CTC TGC GTG CCC GCT	587
108 TAT TAKE GGE ACG GTG CGC TAKE GGE GCG CTC GAG CTC TGC GTG CCC GCT 107 Tyr Tyr Gly Thr Val Arg Tyr Gly Ala Leu Glu Leu Cys Val Pro Ala	307
107 191 191 GIŞ IMI VAI AIŞ 191 GIŞ AIA BEA GIA BEA GŞS VAI 110 MIA 108 160 165 170 175	
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111 Trp Glu Asp Ala Arg Arg Arg Ala Leu Asp Val Ala Thr Phe Ala Ala	
112 180 185 190	
114 GGC TAC CTG CTG CCG GTG GCC GTG GTG AGC CTG GCC TAC GGA CGC ACG	683
115 Gly Tyr Leu Leu Pro Val Ala Val Val Ser Leu Ala Tyr Gly Arg Thr	
116 195 200 205	
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119 Leu Cys Phe Leu Trp Ala Ala Val Gly Pro Ala Gly Ala Ala Ala Ala	
120 210 215 220	
122 GAG GCG CGC AGA CGG GCG ACC GGC CGG GCG GC	779
123 Glu Ala Arg Arg Arg Ala Thr Gly Arg Ala Gly Arg Ala Met Leu Ala	
124 225 230 235	007
126 GTG GCC GCG CTC TAC GCG CTT TGC TGG GGC CCG CAC CAC GCG CTC ATC	827

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136				275					280					285			
							GCC										971
	Pro	Leu		Tyr	Ser	Leu	Ala		Arg	His	Phe	Arg		Arg	Phe	Arg	
140			290					295					300				
							CGT										1019
	Arg		Trp	Pro	Cys	Gly	Arg	Arg	Arg	His	Arg		His	His	Arg	Ala	
144		305					310	a. a				315	~~~	~~~	~~~	0.05	1067
							GTC										1067
		Arg	АТА	Leu	Arg		Val	GIn	Pro	Ата		ser	GTÄ	Pro	Ата		
	320		~~~	~~~	~~~	325			005	maa	330	3 ma	~~~	000		335	1116
							CCT										1115
	туг	Pro	GTĀ	Asp	340	Arg	Pro	Arg	GTĀ	345	ser	met	GIU	PIO	350	GIÀ	
152	Cam	COM	OTTC	CCT		CCT	GGA	CAC	አ ርጥ		CTA	200	CTC	TOO		ACC.	1163
							Gly										1103
156	ASP	на	ьeu	355	СТУ	сту	СТУ	GIU	360	Ary	пеп	1111	Leu	365	FIO	AIG	
	CCA	ССТ	CAA		יייייייייייייייייייייייייייייייייייייי	acc o	CGCT	rcca(		ቦርልሮር	<u>፡</u> ጥርጥር	2 ጥር፤	CAA				1212
		Pro		11111		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			. · ·			3 101					
160	1																
160 162	_		370	ATCTA	AGGGZ	AA CO	GCAG	STCTO	C GC(	CAGGO	CTCC	ACC	\AAA/	AGC A	AGAAG	GCAAAG	1272
162	ACC		370 AAC 2	ATCT!	AGGG	AA CO	GCA	GTCT(	C GC	CAGG	CTCC	ACC	\AAA!	AGC 1	AGAA(	GCAAAG	1272 1280
162 164	ACCA	AAGGA CAGG	370 AAC <i>1</i> 3				GCA(			CAGGO	CTCC	ACC	\AAA\	AGC A	AGAA	GCAAAG	
162 164	ACCA	AAGGA CAGGO INFO	370 AAC A G ORMA!	rion	FOR	SEQ		10: 2	2:	CAGG	CTCC	ACC	(AAA/	AGC 1	AGAA(	GCAAAG	
162 164 167	ACCA TTG(	AAGGA CAGGO INFO	370 AAC A G ORMA! ) SE(	rion Quenc	FOR CE CI	SEQ HARA(	ID I	10: 2 ISTIC	2: CS:		CTCC	ACC	\AAA\	AGC A	AGAA(	GCAAAG	
162 164 167 169	ACCA TTG(	AAGGA CAGGO INFO	370 AAC A S ORMAS ) SE(	TION QUENC A) LI	FOR CE CI ENGTI	SEQ HARAG	ID 1	NO: 2 ESTIC	2: CS:		CTCC	ACC	\AAA\	AGC 1	AGAA	GCAAAG	
162 164 167 169 170	ACCA TTG(	AAGGA CAGGO INFO	370 AAC 2 3 ORMA: ) SE( (2	TION QUENC A) LI B) T	FOR CE CI ENGTI	SEQ HARA( H: 31	ID I CTERI 70 ar	NO: 2 ISTIC mino cid	2: CS:		CTCC	ACC	\AAA/	AGC 1	AGAAG	GCAAAG	
162 164 167 169 170 171	ACCA TTG(	AAGGA CAGGO INFO (i)	370 AAC A S ORMA! ORMA! (A (A (I	TION QUENC A) Li B) T' C) TO	FOR CE CI ENGTI YPE: OPOLO	SEQ HARAG H: 31 amin DGY:	ID 1 CTER: 70 ar	NO: 2 ISTIC mino cid car	2: CS:		CTCC	ACC	AAAA	AGC 1	AGAAC	GCAAAG	
162 164 167 169 170 171 172 174 176	ACCA TTGG (2)	AAGGA CAGGO INFO (i)	370 AAC 2 G ORMA' (2 (1 (1) ) MOI () SE(	TION QUENC A) LI B) TO COURT	FOR CE CI ENGTI YPE: OPOLO LE TI	SEQ HARAG H: 31 amin DGY: YPE: ESCR	ID 1 CTER: 70 ar no ac line prot	NO: 2 ISTIC mino cid car cein	2: CS: acid	is Id No	D: 2:	:					
162 164 167 169 170 171 172 174 176	ACCA TTGG (2)	AAGGA CAGGO INFO (i)	370 AAC 2 G ORMA' (2 (1 (1) ) MOI () SE(	TION QUENC A) LI B) TO COURT	FOR CE CI ENGTI YPE: OPOLO LE TI	SEQ HARAG H: 31 amin DGY: YPE: ESCR	ID 1 CTER: 70 ar no ac line prot	NO: 2 ISTIC mino cid car cein	2: CS: acid	is Id No	D: 2:	:					
162 164 167 169 170 171 172 174 176 178 179	ACCATTGG (2)	AAGGA CAGGO (i) (i) (ii) (xi)	370 AAC A G DRMA' ) SEQ (1 (1 ) MOI ) SEQ ASP	TION QUENC A) LI B) TO C) TO LECUI QUENC Ile	FOR CE CI ENGTI YPE: DPOLO LE TY CE DI Gln 5	SEQ HARAC H: 37 amin OGY: YPE: ESCRI Asn	ID 1 CTER: 70 ar no ac line prot [PTIC Ile	NO: 2 ISTIC mino cid ear cein ON: S	2: CS: acid	ls ID NO Asp 10	): 2: Ser	: Pro	Gly	Ser	Val 15	Gly	
162 164 167 169 170 171 172 174 176 178 179	ACCATTGG (2)	AAGGA CAGGO (i) (i) (ii) (xi)	370 AAC A G DRMA' ) SEQ (1 (1 ) MOI ) SEQ ASP	TION QUENC A) LI B) TO C) TO LECUI QUENC Ile	FOR CE CI ENGTI YPE: DPOLO LE TY CE DI Gln 5	SEQ HARAC H: 37 amin OGY: YPE: ESCRI Asn	ID 1 CTER: 70 ar no ac line prot	NO: 2 ISTIC mino cid ear cein ON: S	2: CS: acid	ls ID NO Asp 10	): 2: Ser	: Pro	Gly	Ser Leu	Val 15	Gly	
162 164 167 169 170 171 172 174 176 178 179 181	ACCA TTGG (2) Met 1	AAGGA CAGGO (i) (ii) (xi) Ala	370 AAC AG CRMA! SEQ (1 (1 ) MOI ) SEQ ASP	TION QUENC A) LI B) TS C) TC LECUI QUENC Ile Val	FOR CE CI ENGTI YPE: DPOLO LE TY CE DI Gln 5	SEQ HARAGH: 37 amin DGY: YPE: ESCRI Asn Val	ID NCTER: 70 and a control 10 and 11	NO: 2 ISTIC mino cid ear cein ON: S Ser	2: CS: acid SEQ 1 Leu Ala 25	ls ID N( Asp 10 Leu	): 2: Ser Ile	: Pro Phe	Gly Leu	Ser Leu 30	Val 15 Gly	Gly Met	
162 164 167 169 170 171 172 174 176 178 179 181 182 184	ACCA TTGG (2) Met 1	AAGGA CAGGO (i) (ii) (xi) Ala	370 AAC AG CRMA' SEQ (I (I ) MOI ) SEQ ASP Ala	TION QUENC A) LI B) TS C) TC LECUI QUENC Ile Val	FOR CE CI ENGTI YPE: DPOLO LE TY CE DI Gln 5	SEQ HARAGH: 37 amin DGY: YPE: ESCRI Asn Val	ID 1 CTER: 70 ar no ac line prot [PTIC Ile	NO: 2 ISTIC nino cid ear cein ON: S Ser Phe	2: CS: acid SEQ 1 Leu Ala 25	ls ID N( Asp 10 Leu	): 2: Ser Ile	: Pro Phe	Gly Leu Pro	Ser Leu 30	Val 15 Gly	Gly Met	
162 164 167 169 170 171 172 174 176 178 179 181 182 184	ACCA TTGG (2) Met l Ala	AAGGA CAGGG (ii) (ii) (xi) Ala Val	370 AAC A  G DRMAS  (I (I ) MOI ) SEQ ASP  Ala  Asn 35	FION QUENC A) Li B) TY C) TC LECUI QUENC Ile Val 20 Gly	FOR CE CI CENGTI CPOLO LE TI CE DI Gln 5 Pro	SEQ HARACH: 37 amin DGY: YPE: ESCR: Asn Val	ID I	NO: 2 ISTIC nino cid ear cein ON: 5 Ser Phe	ES: acid SEQ E Leu Ala 25 Val	ds ID NO Asp 10 Leu Leu	): 2: Ser Ile Leu	: Pro Phe Gln	Gly Leu Pro 45	Ser Leu 30 Gly	Val 15 Gly Pro	Gly Met Ser	
162 164 167 170 171 172 174 176 178 179 181 182 184 185	ACCA TTGG (2) Met l Ala	AAGGA CAGGC (ii) (ii) (xi) Ala Val Gly	370 AAC A  G DRMAS  (I (I ) MOI ) SEQ ASP  Ala  Asn 35	FION QUENC A) Li B) TY C) TC LECUI QUENC Ile Val 20 Gly	FOR CE CI CENGTI CPOLO LE TI CE DI Gln 5 Pro	SEQ HARACH: 37 amin DGY: YPE: ESCR: Asn Val	ID 1 CTER: 70 ar no ac line prot IPTIC Ile Leu Ser	NO: 2 ISTIC nino cid ear cein ON: 5 Ser Phe	ES: acid SEQ E Leu Ala 25 Val	ds ID NO Asp 10 Leu Leu	): 2: Ser Ile Leu	: Pro Phe Gln Phe	Gly Leu Pro 45	Ser Leu 30 Gly	Val 15 Gly Pro	Gly Met Ser	
162 164 167 170 171 172 174 176 178 179 181 182 184 185 187	ACCATTGG (2)  Met lala  Val	AAGGACAGGC INFO	370 AAC A G DRMA: ) SE( (I ) MOI ) SE( Asp Ala  Asn 35 Gln	FION QUENC A) LI B) TY C) TC LECUI QUENC Ile Val 20 Gly	FOR CE CI ENGTI YPE: DPOLO LE TI Gln 5 Pro Leu	SEQ HARAGH: 3: amin DGY: YPE: ESCR: Asn Val Val	ID 1 CTER: 70 ar no ac line prot IPTIC Ile Leu Ser 55	NO: 2 ISTIC mino cid ear cein ON: 5 Ser Phe Ala 40	ES: acid SEQ E Leu Ala 25 Val	ls ID NO Asp 10 Leu Leu Asp	): 2: Ser Ile Leu Leu	Pro Phe Gln Phe 60	Gly Leu Pro 45 Ile	Ser Leu 30 Gly Leu	Val 15 Gly Pro Asn	Gly Met Ser Leu	
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162 164 167 169 170 171 172 174 176 178 179 181 182 184 185 187 188	ACCATTGG (2)  Met lala  Val  Ala  Ala  Ala  65	AAGGACAGGCINFC	370 AAC A G DRMAS ) SE( (I ) MOI ) SE( ASP Ala ASn 35 Gln Ala	FION QUENC A) LI B) TY C) TC LECUI QUENC Ile Val 20 Gly Glu Asp	FOR CE CI ENGTI YPE: DPOLO LE TI Gln 5 Pro Leu Pro	SEQ HARACH: 3: amin DGY: YPE: ESCR: Asn Val Val Ser Cys 70	ID 1 CTER: 70 ar no ac line prot IPTIC Ile Leu Ser 55 Phe	NO: 2 ISTIC mino cid car cein ON: S Ser Phe Ala 40 Thr	2: CS: acid SEQ 2 Leu Ala 25 Val Thr	is ID NO Asp 10 Leu Leu Asp	): 2: Ser Ile Leu Leu Cys 75	: Pro Phe Gln Phe 60 Val	Gly Leu Pro 45 Ile Pro	Ser Leu 30 Gly Leu Phe	Val 15 Gly Pro Asn Gln	Gly Met Ser Leu Ala 80	
162 164 167 169 170 171 172 174 176 178 179 181 182 184 185 187 188 190 191 193	ACCATTGG (2)  Met lala  Val  Ala  Ala  Ala  65	AAGGACAGGCINFC	370 AAC A G DRMAS ) SE( (I ) MOI ) SE( ASP Ala ASn 35 Gln Ala	FION QUENC A) LI B) TY C) TC LECUI QUENC Ile Val 20 Gly Glu Asp	FOR CE CIENGTI YPE: DPOLO CE DI Gln 5 Pro Leu Pro Leu Leu Leu	SEQ HARACH: 3: amin DGY: YPE: ESCR: Asn Val Val Ser Cys 70	ID 1 CTER: 70 ar no ac line prot IPTIC Ile Leu Ser 55	NO: 2 ISTIC mino cid car cein ON: S Ser Phe Ala 40 Thr	2: CS: acid SEQ 2 Leu Ala 25 Val Thr	ls ID NO Asp 10 Leu Leu Asp Cys	): 2: Ser Ile Leu Leu Cys 75	: Pro Phe Gln Phe 60 Val	Gly Leu Pro 45 Ile Pro	Ser Leu 30 Gly Leu Phe	Val 15 Gly Pro Asn Gln Cys	Gly Met Ser Leu Ala 80	
162 164 167 169 170 171 172 174 176 178 179 181 182 184 185 187 188 190 191 193 194	ACCATTGG (2)  Met lala Val Ala Ala Ala 65 Ala	AAGGACAGGCINFC	370 AAC A G DRMAS ) SEG (I ) MOD ) SEG Asp Ala Asn 35 Gln Ala Tyr	FION QUENC A) LI B) TY C) TC LECUI QUENC Ile Val 20 Gly Glu Asp	FOR CE CIENGTI YPE: DPOLO CE TI GLE TI FOO LEU Pro Leu Leu 85	SEQ HARACH: 3; amin OGY: YPE: YPE: Asn Val Val Ser Cys 70 Asp	ID 1 CTER: 70 an no ac line prot IPTIC Ile Leu Ser 55 Phe Ala	NO: 2 ISTIC mino cid ear cein ON: S Ser Phe Ala 40 Thr Ile	ES: acid SEQ I Leu Ala 25 Val Thr Leu Leu	ID NO Asp 10 Leu Leu Asp Cys Phe 90	O: 2: Ser Ile Leu Leu Cys 75 Gly	: Pro Phe Gln Phe 60 Val	Gly Leu Pro 45 Ile Pro	Ser Leu 30 Gly Leu Phe	Val 15 Gly Pro Asn Gln Cys 95	Gly Met Ser Leu Ala 80 Lys	
162 164 167 169 170 171 172 174 176 178 179 181 182 184 185 187 188 190 191 193 194	ACCATTGG (2)  Met lala Val Ala Ala Ala 65 Ala	AAGGACAGGCINFC	370 AAC A G DRMAS ) SEG (I ) MOD ) SEG Asp Ala Asn 35 Gln Ala Tyr	FION QUENC A) LI B) TY C) TC LECUI QUENC Ile Val 20 Gly Glu Asp	FOR CE CIENGTI YPE: DPOLO CE TI GLE TI FOO LEU Pro Leu Leu 85	SEQ HARACH: 3; amin OGY: YPE: YPE: Asn Val Val Ser Cys 70 Asp	ID 1 CTER: 70 ar no ac line prot IPTIC Ile Leu Ser 55 Phe	NO: 2 ISTIC mino cid ear cein ON: S Ser Phe Ala 40 Thr Ile	ES: acid SEQ I Leu Ala 25 Val Thr Leu Leu	ID NO Asp 10 Leu Leu Asp Cys Phe 90	O: 2: Ser Ile Leu Leu Cys 75 Gly	: Pro Phe Gln Phe 60 Val	Gly Leu Pro 45 Ile Pro	Ser Leu 30 Gly Leu Phe	Val 15 Gly Pro Asn Gln Cys 95	Gly Met Ser Leu Ala 80 Lys	

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Output Set: N:\CRF3\03192002\J007132.raw

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                                                 155
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                                             170
     211 Glu Asp Ala Arg Arg Ala Leu Asp Val Ala Thr Phe Ala Ala Gly
                     180
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                                     200
                                                         205
     217 Cys Phe Leu Trp Ala Ala Val Gly Pro Ala Gly Ala Ala Ala Ala Glu
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                                 215
     220 Ala Arg Arg Arg Ala Thr Gly Arg Ala Gly Arg Ala Met Leu Ala Val
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                                                 235
     223 Ala Ala Leu Tyr Ala Leu Cys Trp Gly Pro His His Ala Leu Ile Leu
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                                             250
     226 Cys Phe Trp Tyr Gly Arg Phe Ala Phe Ser Pro Ala Thr Tyr Ala Cys
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                                         265
                                                             270
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                                     280
                                                         285
     232 Leu Val Tyr Ser Leu Ala Ser Arg His Phe Arg Ala Arg Phe Arg Arg
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                                 295
                                                     300
     235 Leu Trp Pro Cys Gly Arg Arg Arg His Arg His His His Arg Ala His
                             310
                                                 315
     238 Arg Ala Leu Arg Arg Val Gln Pro Ala Ser Ser Gly Pro Ala Gly Tyr
                         325
                                             330
     241 Pro Gly Asp Ala Arg Pro Arg Gly Trp Ser Met Glu Pro Arg Gly Asp
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              (i) SEQUENCE CHARACTERISTICS:
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                   (A) LENGTH: 1417 base pairs
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                   (B) TYPE: nucleic acid
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                   (C) STRANDEDNESS: single
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                   (D) TOPOLOGY: linear
             (ii) MOLECULE TYPE: DNA
W--> 259
             (ix) FEATURE:
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     262
                   (A) NAME/KEY: CDS
                   (B) LOCATION: 1..1281
     263
     266
             (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
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     269 His Ser Ala Met Thr Leu Ala Leu Leu Ser Pro Pro Pro Ser Pro Thr
                         375
    272 AGC TTC CAG CCC AGA ACA CCT GGC CAG ACC CAG GTC GGG GGA GTT AGA
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48

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	273	Ser	Phe	Gln	Pro	Arg	Thr	Pro	Gly	Gln	Thr	Gln	Val	Gly	Gly	Val	Arg	
W>	274				390					3 <b>95</b>					400			
				GGT														144
	277	Ser	Arg	Gly	Gln	Ala	Thr	Arg	Thr	Gly	Gly	Ser	Cys	Leu	Arg	Ile	Pro	
M>				405					410					415				
				CTT														192
		Ala		Leu	Pro	Arg	Cys		Ser	Asp	Gly	Glu		Ala	Asp	Ala	GIn	
M>			420					425	~~~			~~~	430	ama	001	ama.	G G TT	240
				TCA														240
W>			тте	Ser	Leu	ASP	440	Pro	GIY	ser	Val	445	Ala	Val	нта	Val	450	
W>			СТС	TTT	CCC	СПУ		mmC	СТС	CTG	GGC		стс	GGC	παα	GGG		288
				Phe														200
W>		Val	141	1 110		455			Lea	Leu	460		,	0-1		465		
.,		GTG	CTG	GCA	GTG		CTG	CAG	CCT	GGC		AGT	GCC	TGG	CAG		CCT	336
				Ala														
w>					470					475				_	480			
	296	GGC	AGC	ACC	ACG	GAC	CTG	TTC	ATC	CTC	AAC	CTG	GCG	GTG	GCT	GAC	CTC .	384
	297	Gly	Ser	Thr	Thr	Asp	Leu	Phe	Ile	Leu	Asn	Leu	Ala	Val	Ala	Asp	Leu	
W>				485					490					495				
				ATC														432
		Cys		Ile	Leu	Cys	Cys		Pro	Phe	Gln	Ala		Ile	Tyr	Thr	Leu	
M>			500	<b></b>	ama		~~~	505	ama.	ama.	maa	220	510	CITIC	ara.	C/mC	СТС	400
				TGG														480
T.T .			Ala	Trp	Leu	Pne	520	нта	Leu	Val	Cys	БуS 525	нта	Val	птэ	Leu	530	
M>			<b>ጥ</b> ል <i>ር</i>	CTC	ACC	ΔТС		GCC	AGC	AGC	ጥጥጥ		СТС	ССТ	GCT	GTC		528
				Leu														
W>			-1-			535	-1-				540					545		
		GTG	GAC	AGG	TAC	CTG	GCC	GTG	CGG	CAC	CCG	CTG	CGC	TCG	CGC	GCC	CTG	576
				Arg														
M>					550					555					560			
				CCG														624
		Arg	Thr	Pro	Arg	Asn	Ala	Arg		Ala	Val	Gly	Leu		Trp	Leu	Leu	
M>				565			~~~		570	ama.		m. a	m. a	575	3.00	C TO C	000	670
				CTC														672
		Ата		Leu	Pne	ser	Ата	585	туг	Leu	ser	TAL	590	Gly	1111	vai	AIG	
M>		TD A C	580	GCG	СТС	CAC	CTC		стс	CCC	GCC	тсс		GAC	GCG	CGC	CGC	720
				Ala														0
w>		_	_									605				9	610	
., .				CTG									TAC	CTG	CTG	CCC		768
	329	Arq	Ala	Leu	Asp	Val	Ala	Thr	Phe	Ala	Ala	Gly	Tyr	Leu	Leu	Pro	Val	
W>					-	615					620	_				625		
				GTG														816
	333	Ala	Val	Val	Ser	Leu	Ala	Tyr	Gly	Arg	Thr	Leu	Arg	Phe	Leu	Trp	Ala	
M>				•	630					635			_		640			
				GGT														864
	337	Ala	Val	Gly	Pro	Ala	Gly	Ala	Ala	Ala	Ala	GLu	Ala	Arg	arg	Arg	ATG	

VERIFICATION SUMMARY
PATENT APPLICATION: US/10/007,132
DATE: 03/19/2002
TIME: 14:57:25

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L:29 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
 L:30 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]
L:56 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=1
L:259 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=3
L:270 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:274 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:278 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:282 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:286 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:290 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:294 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:298 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:302 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:306 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:310 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:314 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:318 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:322 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:326 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:330 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:334 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:338 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:342 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:346 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:350 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:354 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:358 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:362 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:366 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:370 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:374 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3
L:482 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=5
L:561 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=6
L:576 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=7
L:591 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=8
L:608 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=9
L:623 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=10
L:638 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=11
L:653 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=12
L:668 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=13
L:683 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=14
L:698 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=15
L:713 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=16
L:728 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=17
L:743 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=18
L:759 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=19
L:774 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=20
L:789 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=21
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VERIFICATION SUMMARY
PATENT APPLICATION: US/10/007,132
DATE: 03/19/2002
TIME: 14:57:25

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L:807 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=22
L:822 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=23
L:837 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=24
L:852 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=25
L:867 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=26
L:882 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=27
L:897 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=28
L:912 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=29
L:927 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=30
L:942 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=31
L:957 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=32
L:972 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=33
L:987 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=34
L:1002 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=35
L:1017 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=36
L:1032 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=37
L:1047 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=38
L:1061 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=39
L:1076 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=40
L:1091 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=41
L:1106 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=42
L:1106 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=42
L:1121 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=43
L:1136 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=44
L:1151 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=45
L:1166 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=46
L:1181 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=47
L:1199 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=48
L:1214 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=49
L:1229 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=50
L:1244 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=51
L:1258 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=52
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